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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/722,172	11/25/2000	Kia Silverbrook	NPS022US	3860

24011 7590 10/20/2003

SILVERBROOK RESEARCH PTY LTD
393 DARLING STREET
BALMAIN, 2041
AUSTRALIA

EXAMINER

ABDULSELAM, ABBAS I

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 10/20/2003

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/722,172

Applicant(s)

SILVERBROOK ET AL.

Examiner

Abbas I Abdulsalam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4-5, 7-8 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ackley (USPN 6152370) in view of Knighton et al. (USPN 5939702).

Regarding claim 1, Ackley teaches as shown in Fig. 1, a data collection symbology reader (50) including a light source (52), a sensor (54), a receiver or converter (56), processor and (60) and memory (57). See Fig. 1 Ackley discloses that the reader (50) is constructed to read and decode a bar code symbol (53) or "data collection symbols" formed as relief pattern on surfaces (col. 6, lines 1-3). Ackley defines "data collection symbols" to mean a symbol from any linear, stacked, area and other machine-readable symbology (col. 5, lines 34-39). Ackley indicates that all elements in a given profile can be identified and subsequently decoded. See col. 3, lines 47-67 and col. 1-3. Ackley teaches that a processor (60) identifies portions of a large shape signal (received from a receiver) corresponding to resolved shapes and spaces, generates an unresolved element matrix in response to the large shape signal, and produces a signal indicative of the information encoded based on the unresolved element matrix. See col. 4, lines 39-45 Referring to Fig. 3, Ackley shows that the sensor (54) having an imaging lens (221) and an array of photo- detectors (222) producing a signal analogous to a reflectance profile (Fig. 4B). Ackley defines a profile to mean analog signal corresponding to a spatial representation of bars

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and spaces in a relief formed symbol. See col. 6, lines 37-59. In addition, Ackley's symbology reader (50) includes a sensor (54), which can be one or two-dimensional CCD, semiconductor array, vidicon or other area imager. See col. 5, lines 53-55.

However, Ackley does not teach "an attachment arrangement for facilitating attachment of the device to a writing implement". Knighton on the other hand teaches an apparatus comprising a writing implement (10) integrated with an optical reader (20), which includes a single optional detector or a plurality of detectors. See col. 3, lines 1-10 and Fig. 1. Knighton discloses the apparatus with a housing (40) including a first housing member (62), a second housing member (64), a writing cartridge (70) and an optical reader (100). See Fig. 3. Knighton further illustrates that the first housing member (62) includes a bearing (82) at the interior portion (68), and the bearing receives and retain a journal (84) of a light pipe (86). Likewise, a second housing member (64) includes a bearing at an interior portion (90) to receive and retain a journal (92) of the light pipe (86). See col. 4, lines 18-25.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ackley's symbology reader (50) to adapt Knighton's writing implement (10). One would have been motivated in view of the suggestion in Knighton the writing implement (10) as configured in Fig. 3 which shows retaining or holding by bearings (82) is equivalent to the desired writing implement that is attachable. The use of writing implement helps function an integrated optical data reader as taught by Knighton et al.

Regarding claim 4, Knighton mentions the use of a wand-shaped handheld device, which is held like a pencil for swiping the optical data reader. See col. 1, lines 14-21. It would have been obvious that such a pencil can be oriented in a desirable fashion during use.

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Regarding claim 5, Knighton indicates that gun type devices, which include an optical reader, have a handheld for holding like a gun. See col. 1, lines 23-28. It would have been obvious that the handle is used for practically the same purpose as a grip.

Regarding claims 7-8, knighton teaches an apparatus including a writing implement (10), which has an elongate form like a pen, a pencil or a stylus. See col. 2, lines 10-55.

Regarding claim 13, Ackley teaches the use of data collection or bar symbol (53), which refers to a symbol from any linear, stacked, area and other machine-readable symbology. See col. 5, lines 34-46. It would have been obvious that "machine readable symbology" is a phrase wide enough to include tags as coded data.

Regarding claim 14, Knighton teaches an apparatus having a writing implement (10) integrated with an optical reader (20), with the a apparatus having the form and function of pen, pencil or stylus, and can be carried by a user such that the user is afforded the capability of reading optical data such as bar codes, printed text and/or human viewable images. See col. 1, lines 63-67 and col. 2, lines 1-10.

2. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ackley in view Knighton and in further view of kawabe (USPN 6048124).

Regarding claim 2, Ackley as modified has been discussed above. However, the modified Ackley with a writing implement (10) does not teach an attachment arrangement facilitating both an attachment and detachment of the sensing device to and from a writing implement. Kawabe on the other hand discloses a different writing implement (10) with moveable attachment body

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(40), which can be detached from the fixed attachment body (50) and attached back to the fixed attachment body (50). See Fig. 3.

Therefore, it would have been obvious to one having skill in the art to further modify the modified Ackley's writing implement (10) to adapt Kawabe's movable attachment body (40) as shown in Fig. 3. One would have been motivated in view of the suggestion in Kawabe the movable attachment body (40) as configured in Fig. 3 equivalently provides the desired attachment and detachment of the sensing device to and from a writing implement. The use of a movable attachment body (40) helps function a writing implement more effectively as taught by Kawabe.

Regarding claim 3, Kawabe discusses the use of a clip for writing implement with a cap that can be placed inside a packet. Kawabe shows that such a clip is used for holding a writing implement by clamping the material of the packet between the clip end and the cap. See col. 1, lines 12-20. It would have been obvious that the same idea of clamping can be used between the device and writing implement.

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ackley in view of Knighton and in further view of Wilson et al. (USPN 5434370).

Regarding claim, 6, Ackley as modified does not teach a calibrator "for calibrating the device such that the information indicative of the distance between a writing portion of the writing implement and the detector is incorporated in the region identity." Wilson on the other

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hand teaches calibration strips (22a, 22b, 22c 22d) for interacting with the laser beams for the purpose of providing reference end points from which to track (X, Y) movement of the implement (14), and to provide information regarding the position of the radiation relative to the writing surface. See col. 4, lines 43-49 and Fig. 1.

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify Ackley's modified symbology reader (50) system to include Wilson's use of calibration strips (22a, 22b, 22c, 22d) as shown in Fig. 1. One would have been motivated in view of the suggestion in Wilson that the calibration strips are functionally equivalent to the desired calibrator. The use of calibration strips helps function field responsive graphic data acquisition system (10) as a taught by Wilson et al.

4. Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ackley in view of Knighton and in further view of Teufel et al. (USPN 6243503).

Regarding claim 9, Ackley as modified does not teach the "movement of data" defined as indicative of the sensing device's movement relative to the region. Teufel on the other hand teaches a motion detector unit (202) for recording the given position of the data acquisition device (200) relative to the image plane (20) and photodiodes (229, 230) intended for detecting the movement the data acquisition device. See col. 10, lines 13-19, 64-67, col. 11, lines 1-4, Fig. 17, (202), Fig 18B and Fig. 19(A-B).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Ackley's modified method of decoding data collection

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symbols to further modify by adapting Teufel's motion detector (202) along with the use of photodiodes (229, 300). One would have been motivated in view of the suggestion in Teufel that the motion detector with photodiodes serve the same purpose and can be equivalently used to obtain the desired sensing device's movement and position relative to the surface. The use of motion detector and photodiodes helps function data acquisition device more effectively as taught by Teufel et al.

Regarding claim 10, Teufel teaches the process in which recognition and translation of handwritten information into electrically readable information takes place. See col. 11, lines 60-67 and col. 12, lines 1-2. Teufel discloses photodiodes (229, 229') on the one hand, and photodiodes (229', 229' ") on the other each detecting a signal from the line of alphanumerical characters.

Regarding claims 11-12, Teufel teaches that as the data acquisition device (200) moves parallel with a marked surface, a pattern of signals is produced in the diode array. Teufel further indicates that such a pattern along with suitable data processing means can be used to determine the direction and the speed of the motion of the reading device. It would have been obvious the same concept can be uses to determine the acceleration of the device.

Conclusion

5. The prior art made of record and not relied upon is considered to applicant's disclosure. The following arts are cited for further reference.

U.S. Pat. No. 6, 252,182 to Lai

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U.S. Pat. No. 4,052,713 to

6. Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Abbas Abdulsalam** whose telephone number is **(703) 305-8591**. The examiner can normally be reached on Monday through Friday (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard Hjerpe**, can be reached at **(703) 305-4709**.

Any response to this action should be mailed to:

Commissioner of patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand delivered responses should be brought to Crystal Park II, Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology center 2600 customer Service office whose telephone number is (703) 306-0377.



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Abbas Abdulsalam

Examiner

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October, 5, 2003